



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,835	12/10/2003	Jussi Ruutu	NOKM.077PA	6761

7590 06/20/2006

Hollingsworth & Funk, LLC  
Suite 125  
8009 34th Avenue South  
Minneapolis, MN 55425

EXAMINER
----------

PHAM, THOMAS K

ART UNIT	PAPER NUMBER
----------	--------------

2121

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/732,835	<b>Applicant(s)</b> RUUTU ET AL.	
	<b>Examiner</b> Thomas K. Pham	<b>Art Unit</b> 2121	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-27 and 29-33 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-17, 19-27 and 29-33 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Response to Amendment**

1. This is in response to the amendment filed 4/17/2006.
2. Applicants' amendment, with respect to the new issues of claims 1, 12, 19, 29 and 33, necessitated new grounds of rejection presented in this Office action.

**Quotations of U.S. Code Title 35**

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim Rejections - 35 USC § 103**

7. Claims 1, 3-5, 10-12, 15-17, 19, 21-23, 27 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,349,352 ("Lea").

**Regarding claim 1**

Lea teaches the invention including an apparatus configured to control an automation function, comprising: two or more automation modules is taught as two or more audio/video (AV) electronic devices interoperating in a network wherein each of the AV devices has a corresponding device control module (DCM) (see FIG. 1-5, C 2 L 47-60 and C 3 L 4-8), each automation module including, a data interface for exchanging data with other automation modules of the one or more automation modules is taught in C 7 L 51-62; a processor coupled to the data interface is taught in C 11 L 39-49; and a functional component operable by the processor for performing an independent automation task is taught as each DCM within the AV device provides the functionality and capabilities independently for the device (see C 3 L 17-20) ; and wherein the data interfaces of the two or more automation modules are coupled to exchange data communications for coordinating the respective functional components of the automation modules to perform the automation function is taught in C 13 L 60 to C 14 L 16.

Lea does not specifically disclose the two or more AV devices connectable into a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers which

Art Unit: 2121

includes a CD player, a radio, a tape player and any other auxiliary audio/video source (see FIG. 1 and C 2 L 53 to C 3 L 9). It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

### **Regarding claim 12**

Lea teaches the invention including a method for performing an automatic control function, comprising: providing a first and second automation module is taught as two or more audio/video (AV) electronic devices interoperating in a network wherein each of the AV devices has a corresponding device control module (DCM) (see FIG. 1-5, C 2 L 47-60 and C 3 L 4-8), each automation module configured for performing an independent function is taught as each DCM within the AV device provides the functionality and capabilities independently for the device (see C 3 L 17-20); coordinating the independent functions of the first and second automation modules by communicating data between the first and second automation modules is taught in C 7 L 51-62; and performing the automatic control function based on the coordinated independent functions of the first and second automation modules is taught in C 13 L 60 to C 14 L 16.

Lea does not specifically disclose connecting the first and second automation modules into a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers which

Art Unit: 2121

includes a CD player, a radio, a tape player and any other auxiliary audio/video source (see FIG. 1 and C 2 L 53 to C 3 L 9). It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

**Regarding claim 19**

Lea teaches the invention including a system for controlling an automation function, the system comprising: two or more control devices each comprising one or more automation modules selected from a plurality of automation modules is taught as a network having two or more control devices (FAVs devices) connected with plurality of audio/video (AV) electronic devices wherein each of the AV devices has a corresponding device control module (DCM) (see FIG. 1-5, C 2 L 47-60 and C 3 L 4-8), wherein each of the automation modules includes, a data interface for exchanging data with other automation modules of the plurality of automation modules is taught in C 7 L 51-62; a processor coupled to the data interface is taught in C 11 L 39-49; a functional component operable by the processor for performing an independent automation task is taught as each DCM within the AV device provides the functionality and capabilities independently for the device (see C 3 L 17-20); and wherein the data interfaces of the plurality of automation modules are coupled to exchange data communications for coordinating the respective functional components of the automation modules to perform a function of the control device is taught in C 10 L 16-36; and wherein the control devices are configured to communicate with each other via the data interfaces of at least one of the automation modules of the respective control devices to coordinate the functions of the respective control devices to perform the automation function is taught in C 13 L 60 to C 14 L 16.

Lea does not specifically disclose at least one of the control devices comprises two or more of the automation modules capable of being couple into a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers which includes a CD player, a radio, a tape player and any other auxiliary audio/video source (see FIG. 1 and C 2 L 53 to C 3 L 9). It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

**Regarding claim 29**

Lea teaches the invention including a computer-readable medium configured with instructions for causing a processor of a data processing arrangement to perform steps comprising: establishing communications with one or more automation modules is taught as two or more audio/video (AV) electronic devices interoperating in a network wherein each of the AV devices has a corresponding device control module (DCM) (see FIG. 1-5, C 2 L 47-60 and C 3 L 4-8), the one or more automation modules being in data communication with each other, each automation module configured for performing an independent automation task is taught as each DCM within the AV device provides the functionality and capabilities independently for the device (see C 3 L 17-20); receiving data from the automation modules that describes the independent automation task associated with the automation modules is taught in C 13 L 60-67;

Art Unit: 2121

providing a user interface to create a data set used to coordinate the independent automation tasks of the automation modules to perform an automation function is taught in C 13 L 1-13; and communicating the data set to at least one of the automation modules to perform the automation function is taught in C 13 L 36-46.

Lea does not specifically disclose the automation modules capable of being coupled into a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers which includes a CD player, a radio, a tape player and any other auxiliary audio/video source (see FIG. 1 and C 2 L 53 to C 3 L 9). It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

### **Regarding claim 33**

Lea teaches the invention including an automation module operable with other automation modules for performing an automation function, comprising: means for connecting with the other automation modules is taught as two or more audio/video (AV) electronic devices interoperating in a network wherein each of the AV devices has a corresponding device control module (DCM) (see FIG. 1-5, C 2 L 47-60 and C 3 L 4-8); means for performing an independent automation task is taught as each DCM within the AV device provides the functionality and capabilities independently for the device (see C 3 L 17-20); and means for exchanging data with



Art Unit: 2121

other automation modules of the assembly to coordinate the independent automation task with one or more independent automation tasks of the other automation modules to perform the automation function is taught in C 13 L 60 to C 14 L 16.

Lea does not specifically teach connecting the automation modules to form a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers which includes a CD player, a radio, a tape player and any other auxiliary audio/video source (see FIG. 1 and C 2 L 53 to C 3 L 9). It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

#### **Regarding claims 3 and 21**

Lea teaches wherein the data interfaces of the automation modules are accessible via a computing arrangement (see Col. 3 lines 4-8).

#### **Regarding claims 4 and 22**

Lea teaches wherein the computing arrangement actively controls the automation function (see Col. 3 lines 17-20).

#### **Regarding claims 5 and 23**

Art Unit: 2121

Lea teaches wherein the computing arrangement is configured to communicate a configuration to the apparatus for coordinating the functional components, and wherein the processors of the automation modules are configured to perform the automation function based on the configuration (see Col. 3 lines 20-36).

**Regarding claims 10 and 27**

Lea teaches wherein the independent automation task comprises at least one of data input, control output, and external communications (see FIG. 17B).

**Regarding claim 11**

Lea teaches wherein the two or more automation modules further comprise a mechanical interface that allows additional automation modules to connect (see Col. 5 lines 38-54). Lea does not specifically teach connecting the automation modules to form a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers. It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

**Regarding claim 15**

Lea teaches wherein coordinating the independent functions of the first and second automation modules further includes communicating from a computing arrangement to the automation

Art Unit: 2121

modules a configuration for coordinating the independent functions of the first and second automation modules (see Col. 11 line 61 to Col. 12 line 3).

**Regarding claim 16**

Lea teaches wherein performing the automatic control function includes communicating commands from a computing arrangement to the automation modules to coordinate the functions of the first and second automation modules (see Col. 11 lines 39-58).

**Regarding claim 17**

Lea teaches wherein the independent functions of the first and second automation modules comprise at least one of data input, control output, and external communications (see FIG. 17B).

**Regarding claim 30**

Lea teaches providing a user interface to create the data set includes providing a graphical user interface having graphical components representing the one or more automation modules (see Col. 13 lines 1-13).

**Regarding claim 31**

Lea teaches wherein the data set is created by providing user-created graphical components representing coordinations between the independent automation tasks of the two or more automation modules (see Col. 13 lines 1-13).

**Regarding claim 32**

Lea teaches wherein the independent automation tasks of the automation modules comprise at least one of data input, control output, and external communications (see FIG. 17B).

8. Claims 2 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lea in view of U.S. Patent No. 5,929,748 (“Odinak”).

**Regarding claims 2 and 20**

Lea teaches wherein the data interfaces of the two or more automation modules but does not teach with the data interfaces are configured to transfer data via an electrical power interface.

However, Odinak teaches a home control system of two or more automation modules using electrical power lines as data communication medium (see Col. 3 lines 37-53) for the purpose of having a communication interface that utilizes a combination of high-bandwidth and low-bandwidth communication protocols over an existing household electrical wiring (see Col. 2 lines 40-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the data interface of Odinak with the system of Lea because it would provide for the purpose of having a communication interface that utilizes a combination of high-bandwidth and low-bandwidth communication protocols over an existing household electrical wiring.

9. Claims 6-9, 13, 14 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lea in view of U.S. Patent No. 6,288,641 (“Casais”).

**Regarding claims 6 and 24**

Lea does not specifically teach the two or more automation modules include a wireless communications module.

However, Casais teaches a system operable to control an automation function of remotely monitor a surveillance area using mobile terminals and transducers (automation modules) operable in a wireless communication environment (see Col. 2 lines 45-65) for the purpose of providing an increased flexibility in remote monitoring technologies (see Col. 2 lines 25-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the wireless communication of Casais with the system of Lea because it would provide for the purpose of providing an increased flexibility in remote monitoring technologies.

**Regarding claims 7 and 25**

Casais teaches the wireless communications module includes a cellular communications module compatible with a cellular communications network (see Col. 4 lines 47-54).

**Regarding claim 8**

Casais teaches the cellular communications module is arranged to receive data from a mobile terminal to control at least one of the automation modules (see Col. 4 lines 55-65).

**Regarding claim 9**

Casais teaches wherein the cellular communications module is arranged to send data to a mobile terminal to communicate data originating from at least one of the automation modules (see Col. 6 lines 16-34).

**Regarding claim 13**

Lea does not specifically teach communicating a control command from a mobile terminal to at least one of the automation modules.

However, Casais teaches a system operable to control an automation function of remotely monitor a surveillance area using one or more mobile terminals and transducers communicating data originating from a mobile terminal to at least one of the transducers (see Col. 4 lines 55-65) for the purpose of providing an increased flexibility in remote monitoring technologies (see Col. 2 lines 25-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the wireless communication of Casais with the system of Lea because it would provide for the purpose of providing an increased flexibility in remote monitoring technologies.

**Regarding claim 14**

Lea does not specifically teach communicating data originating from at least one of the automation modules to a mobile terminal.

However, Casais teaches a system operable to control an automation function of remotely monitor a surveillance area using one or more mobile terminals and transducers communicating data originating from at least one of the transducers to a mobile terminal (see Col. 6 lines 16-34) for the purpose of providing an increased flexibility in remote monitoring technologies (see Col. 2 lines 25-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the wireless communication of Casais with the system of Lea because it would provide for the purpose of providing an increased flexibility in remote monitoring technologies.

**Regarding claim 26**

Art Unit: 2121

Casais teaches a mobile terminal arranged to communicate data with the cellular communications module (see Col. 4 lines 47-54).

***Response to Arguments***

In the remark the applicants argue that cited reference fails to disclose:

- I) the “consumer electronic devices are connectable into a single assembly” as to claims 1, 12, 19, 29 and 33.
- II) a device is “inter-connectivity to other devices”.
- III) the devices are qualified as “modules”.

In response to applicants’ arguments

- I) Prior art Lea (USPN 6,349,352) does not specifically mention or disclose whether the AV devices are integrated into a single physical assembly. However, the concept and advantages of integrating two or more audio devices into a single physical assembly is very well known and expected in the art. One of ordinary skill in the art would find that there are many home and automobile entertainment systems are integrated into one assembly. A typical example is USPN 6,330,337 to Nicholson et al. discloses an integrated automobile entertainment system for rear seat passengers which includes a CD player, a radio, a tape player and any other auxiliary audio/video source (see FIG. 1 and C 2 L 53 to C 3 L 9). It would have been obvious to one of ordinary skill in the art as a design choice to integrate the AV devices of Lea into a single physical assembly for application such as an entertainment system for the automobile industry.

Art Unit: 2121

II) Prior art Lea also disclose a home audio visual network which define and open architecture for interoperating consumer electronic (CE) devices (see C 2 L 47-60) wherein each CE device has a corresponding device control module (DCM) for providing an application program interface (API) to allow a newly coupled CE device to inter-connect with other CE devices in the network (see C 3 L 4-8). Thus, Lea provides the capability of inter-connecting between devices.

III) Prior art Lea (USPN 6,349,352) discloses each CE device has a corresponding device control module (DCM) for providing an application program interface (API) to allow a newly coupled CE device to inter-connect with other CE devices in the network (see FIG. 1-5, C 2 L 47-60 and C 3 L 4-8). Therefore, each of the consumer electronic devices of Lea is qualified as a “module” that provides the functionality and capabilities independently for the device.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Thomas Pham**  
*Patent Examiner*

A handwritten signature in black ink, appearing to read 'Thump' followed by a long horizontal flourish.

June 15, 2006